UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,299	01/19/2001	Hitoshi Ishida	2565-221P	6355

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EXAMINER
BURGESS, BARBARA N

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	09/764,299	ISHIDA ET AL.
Office Action Summary	Examiner	Art Unit
	Barbara N Burgess	2157

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>08 July 2004</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-26</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-26</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date <u>20040503</u>.
4) ☒ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Amendments filed July 8, 2004. Claims 1-26 are

presented for further examination.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-4, 6-18, and 20-26 are rejected under 35 U.S.C. 103(a) as being

anticipated by Ilg et al. (hereinafter "Ilg", 4,829,297) in view of Gilbert et al. (hereinafter

"Gilbert", 5,297,144).

As per claims 1 and 16, Ilg discloses a system for sending and receiving serial data

comprising:

- A plurality of secondary stations each configured for receiving a refresh request in a

    determined time and for sending one of data and response to a primary station

    (column 1, lines 20-23, column 2, lines 20-23, 47-50, column 5, lines 34-35, 41-44,

    55-57, 66-68, column 6, lines 1-3, 9-15, column 7, lines 5-9, 12-15, 50-67, column 8,

    lines 45-47, column 10, lines 22-27, 30-33, 60-61, column 11, lines 15-17, 53-54, 62-

    64, Figure 1);

- The primary station for sending the refresh request and a polling request asking for sending data, and for retrying one of the polling request and the refresh request within the same determined time in case of failure of receiving one of the data and the response (column 1, lines 17-19, 36-38, column 2, lines 20-22, 47-50, column 5, lines 34-35, 41-44, 55-57, 66-68, column 6, lines 1-3, 9-15, column 7, lines 5-9, 12-15, 50-67, column 8, lines 45-47, column 10, lines 22-27, 30-33, 60-61, column 11, lines 15-17, 53-54, 62-64, Figure 1);

- Retrying for sending one of the refresh request and the polling request to the secondary station which has not provided a normal response within a same determined time (column 4, lines 1-5, column 7, lines 53-55, 60-62, 68, column 8, lines 1-5, 20-23, column 9, lines 24-28).

Ilg does not explicitly disclose:

- A plurality of secondary stations each configured for receiving a synchronization request;

- The primary station further configured for sending the synchronization request simultaneously to the plurality of the secondary stations;

However, the use and advantages for implementing these steps is well known to one skilled in the relevant art at the time the invention was made as evidenced by teachings of Gilbert (column 3, lines 26-45, 55-68, column 7, lines 63-68, column 9, lines 35-41, column 10, lines 51-60).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement the primary station sending a synchronization request simultaneously to the secondary stations and in Ilg's method in order to define the start of a reservation request period allocating fixed time slots during which any remote station having a data message to transmit may request access and reserve a portion of the channel for their data messages.

As per claims 2 and 17, Ilg discloses:

- The primary station includes a retry number counter for counting one of a polling request retried and a refresh request retried, wherein retrying of one of the polling request and the refresh request is stopped after one of a determined number and determined time has passed (column 5, lines 31-40, column 7, lines 5-8, 50-52, 55-63).

As per claim 3, Ilg discloses:

- The primary station includes a record corresponding to each of the secondary stations, wherein a retry flag is set, when a normal response is not received, wherein the retry flag remains in the record corresponding to each of the secondary stations after stopping retrying of one of the polling request and the refresh request (column 4, lines 1-5, column 7, lines 53-55, 60-62, 68, column 8, lines 1-5, 20-23, column 9, lines 24-28).

As per claims 4 and 18, Ilg discloses:

- The secondary station responds in a response frame of a compact type by using a flag code which is different from a flag code of the primary station (column 8, lines 7-9).

As per claims 6 and 20, Ilg discloses:

- The primary station stores information on a type for each of the secondary stations, wherein the primary station skips sending the polling request in the determined time for the secondary station having failure to respond within the determined time (column 4, lines 1-5, column 7, lines 53-55, 60-62, 68, column 8, lines 1-5, 20-23, column 9, lines 24-28).

As per claim 7, Ilg discloses:

- The primary station stores information on a type for each of the secondary stations, wherein the primary station ignores data from the secondary station having failure to respond within the determined time (column 4, lines 1-5, column 7, lines 53-55, 60-62, 68, column 8, lines 1-5, 20-23, column 9, lines 24-28)

As per claim 8, Ilg discloses:

- The primary station stores an error state of each of the secondary stations, wherein the primary station sends an initialization request to the secondary station, when the

secondary station in the error state returns to a normal response state (column 9,

lines 14-38).

As per claim 9, Ilg discloses:

- The primary station stores information of a type for each of the secondary stations,

  wherein the primary station collects information of the secondary station before

  sending and compares the collected information with the information of the type

  before sending the initialization request (column 9, lines 14-38).

As per claim 10, Ilg discloses:

- One of the primary station and the secondary station sends a high level signal for a

  short period after sending a frame (column 5, lines 19-28, 41-49).

As per claim 11, Ilg discloses a system for sending and receiving serial data

comprising:

- A primary station configured for sending, in a determined time, a refresh request and

  a polling request in a specific order without having each secondary station address

  in determined time (column 1, lines 36-44);

- A plurality of secondary stations for responding to the primary station, following to

  the specific order (column 1, lines 36-47).

As per claim 12, Ilg discloses:

- The secondary station has one of a counter and a time monitoring a response from another secondary station and response time, and makes a response of its own station after one of a respectively set order and response time (column 1, lines 36-47).

As per claim 13, Ilg discloses:

- The secondary station has a monitoring responder for responding to the primary station in a determined order after the response time is passed in monitoring (column 5, lines 31-40).

As per claims 14 and 15, Ilg discloses:

- The primary station provides a field for showing that a normal response to the refresh request for the secondary station can be skipped, wherein the secondary station stops a normal refresh response based on the field (column 5, lines 31-40);

- The primary station provides a field for showing that an error report from the secondary station is possible in the refresh response, wherein the secondary station has a monitor for monitoring an error in an own station, wherein the secondary station returns an error response based on the field (column 5, lines 31-40).

As per claims 21, 24, Ilg discloses a system for sending and receiving serial data, comprising:

- A plurality of secondary stations configured to respond to one of a refresh request

  and a polling request (column 1, lines 20-23, column 2, lines 20-23, Figure 1);

- A master station operbly connected to said secondary stations, said master station

  configured to perform first and second sequence of responses in a predetermined

  fixed period of time (column 1, lines 17-19, 36-38, column 2, lines 20-22, Figure 1);

- Master station determining a first sequence of responses by sequentially sending

  one of a refresh request and a polling request to each secondary station and

  recording a response from each secondary station (column 1, lines 36-47, column 9,

  lines 14-38);

- Master station determining a second sequence of responses by sequentially sending

  one of the refresh request and the polling request to each secondary station

  associated with an abnormal response in the first sequence of responses ((column

  4, lines 1-5, column 7, lines 53-55, 60-62, 68, column 8, lines 1-5, 20-23, column 9,

  lines 24-28).

As per claims 22 and 25, Ilg does not explicitly disclose:

- Each of the plurality of secondary stations is configured to prepare the response to a

  synchronization request;

- Master station is configured to simultaneously send the synchronization request to

  the plurality of the secondary stations.

However, the use and advantages for implementing these steps is well known to one

skilled in the relevant art at the time the invention was made as evidenced by teachings

of Gilbert (column 3, lines 26-45, 55-68, column 7, lines 63-68, column 9, lines 35-41,

column 10, lines 51-60).

Therefore, one of ordinary skill in the art at the time the invention was made would

have found it obvious to implement the primary station sending a synchronization

request simultaneously to the secondary stations and in Ilg's method in order to define

the start of a reservation request period allocating fixed time slots during which any

remote station having a data message to transmit may request access and reserve a

portion of the channel for their data messages.

As per claims 23 and 26, Ilg further discloses wherein the abnormal response

includes a busy response and a time (column 8, lines 7-9).

3.   Claims 5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ilg et al. (hereinafter "Ilg", 4,829,297) in view of Gilbert et al. (hereinafter "Gilbert",

5,297,144) and in further view of Davis et al. (hereinafter "Davis", 4, 363, 093).

As per claims 5 and 19, Ilg, in view of Gilbert, does not explicitly disclose:

• The secondary station returns a busy response, when data for responding for the

polling request from the primary station are failed to be prepared, wherein the

primary station retries a polling request for the secondary station which has sent the

busy response.

However, the use and advantages for the secondary station returning a busy response

is well known to one skilled in the relevant art at the time the invention was made as

evidenced by the teachings of Davis (column 38, lines 32-41).

Therefore, one of ordinary skill in the art at the time the invention was made

would have found it obvious to implement or incorporate returning a busy signal in Ilg's

system in order to for the host processor to know that the status of the station is busy

and a response cannot be provided.

Response to Arguments

The Office notes the following arguments:

(a)   Ilg discloses a polling request only. Therefore, Ilg cannot be relied upon to teach

or suggest a refresh request and a polling request.

In response to:

(a)   Examiner is unclear as to the meaning of a "refresh" request. Examiner requests

Applicant to expound on the meaning of a "refresh" request. Examiner understands this

to mean retry until further clarification is made.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Barbara N Burgess whose telephone number is (703)

305-3366. The examiner can normally be reached on M-F (8:00am-4:00pm).
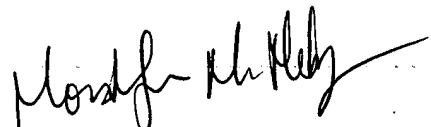
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on (703) 308-7562. The fax phone numbers

for the organization where this application or proceeding is assigned are (703) 872-9306

for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

3900.

Barbara N Burgess
Examiner
Art Unit 2157

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October 15, 2004

MOUSTAFA M. MEKY
PRIMARY EXAMINER